



P8H61-M LE R2.0

Precise digital power design and enhanced integrated graphics on micro ATX H61

- DIGI+ VRM - Digital power Design for the CPU and iGPU
- GPU Boost - Go to the Limit with iGPU Level Up!
- Network iControl - Real-time Network Bandwidth Control
- LucidLogix® Virtu Universal MVP™
- AI Suite II - One-stop Access to Innovative ASUS Features
- Anti-Surge - Full-time Power Guardian-Make System Free From Risk
- **Windows 8 Ready – Assured Compatibility**



CPU, Chipset and Graphics Features

LGA1155 socket for Intel® 3rd/2nd Generation Core™ i7/ Core™ i5/ Core™ i3/ Pentium®/ Celeron® Processors

This motherboard supports the Intel® 3rd/2nd generation Core™ i7/i5/i3/Pentium®/Celeron® processors in the LGA1155 package, with iGPU, memory, and PCI Express controllers integrated to support onboard graphics out with dedicated chipsets, 2-channel (2 DIMMs) DDR3 memory, and 16 PCI Express 3.0/2.0 lanes. This provides great graphics performance. Intel® 3rd/2nd generation Core™ i7/i5/i3/Pentium®/Celeron® processors are among the most powerful and energy efficient CPUs in the world.



Intel® H61 Express Chipset

The Intel® H61 Express Chipset is a single-chipset design to support the new 1155 socket Intel® 3rd/2nd Generation Core™ i7 / Core™ i5 / Core™ i3 / Pentium® / Celeron® processors. It provides improved performance by utilizing serial point-to-point links, which allows increased bandwidth and stability.



PCIe 3.0 Ready

PCI Express® 3.0 (PCIe 3.0) is the latest PCI Express bus standard with improved encoding schemes that provide twice the performance of current PCIe 2.0. Total bandwidth for a x16 link reaches a maximum of 32GB/s, double the 16GB/s of PCIe 2.0 (in x16 mode). As such, PCIe 3.0 provides users unprecedented data speeds, combined with the convenience and seamless transition offered by complete backward compatibility with PCIe 1.0 and PCIe 2.0 devices. PCIe 3.0 will become a must-have feature for users who wish to improve and optimize graphic performance, as well as have the latest technology available to them.



Dual-Channel DDR3 2200(O.C.) / 2133 (O.C.) / 2000 (O.C.) / 1866 (O.C.) / 1600 / 1333 / 1066MHz support

Dual-Channel DDR3 2200 (O.C.)*/ 2133 (O.C.)/ 2000 (O.C.)/ 1866 (O.C.) / 1600 / 1333 / 1066MHz supportThe motherboard supports DDR3 memory that features data transfer rates of 2200 (O.C.)/ 2133 (O.C.)/ 2000 (O.C.)/ 1866 (O.C.)/ 1333 / 1066 MHz to boost the system's performance, and to meet the higher bandwidth requirements of the latest 3D graphics, multimedia, and Internet applications.

* Due to Intel® 2nd generation processors' behavior, DDR3 2200 (and higher), and DDR3 2000/1800 MHz memory modules run at DDR3 2133/1866/1600 MHz.

** Intel® 3rd generation processors support DDR3 1600 MHz and higher frequency.

* PCIe 3.0 speed is supported by Intel® 3rd generation Core™ processors.

Intel® Smart Connect Technology, Intel® Rapid Start Technology

Intel® Smart Connect Technology:

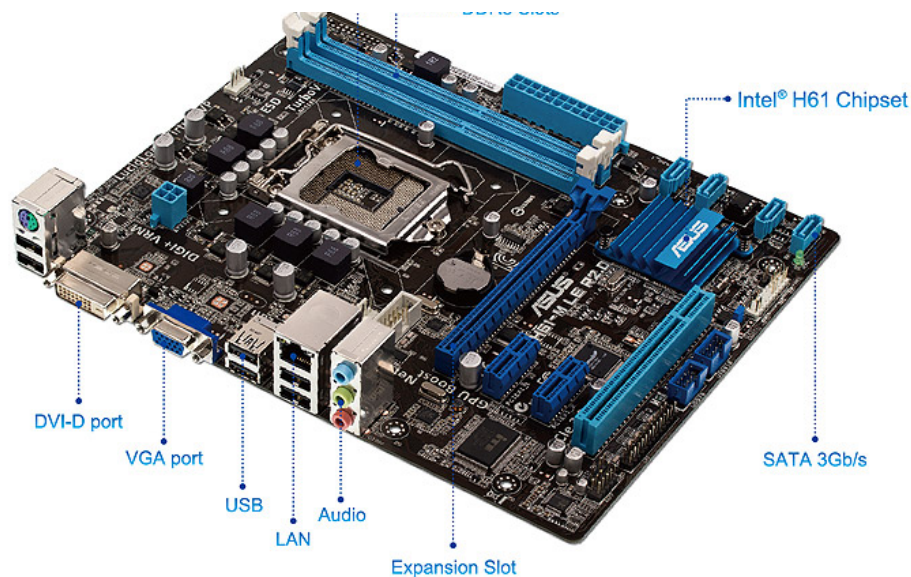
Auto Application Refresh. Less Waiting Time. Your computer can receive web updates with fresh content for selected applications, even when the system is in sleep mode. This means less time waiting for applications to update and sync with the cloud, leading to a more efficient computing experience.

Intel® Rapid Start Technology:

Instant Awake your PC from Sleep Mode Allows your computer to quickly resume from a low-power hibernate state in seconds. Saving your system memory to the designated SSD, it provides your computer a faster wake-up response time, while still keeping the energy use low.

P8H61-M LE R2.0 Product Overview

Support 22/32nm CPU • DDR3 Slots



ASUS Exclusive Features

DIGI+ VRM Digital Power Design

ASUS motherboards using the Intel® H61 chipset employ precise digital voltage regulation for the CPU, called DIGI+ VRM (Voltage Regulation Modules) digital power design. The CPU voltage and VRM frequency are adjusted via either carefully developed automated modes, or by using user-defined profiles. The effect is that DIGI+ VRM technology ensures greater energy efficiency and the best possible PC stability. Boosted by world-renowned ASUS quality, it creates an ideal computing platform for a diverse range of applications, from gaming to multimedia or office work and heavy multitasking. Engineered and tested to assure unmitigated performance, ASUS H61 boards with DIGI+ VRM remain efficient and stability, for reliable application in every scenario.



AI Suite II

One-stop Access to Innovative ASUS Features

With its user-friendly interface, ASUS AI Suite II consolidates all the exclusive ASUS features into one simple to use software package. It allows you to supervise overclocking, energy management, fan speed control, and voltage and sensor readings. This all-in-one software offers diverse and ease to use functions, with no need to switch back and forth between different utilities.



EPU

Energy Efficiency All Around

Tap into the world's first real-time PC power saving chip through a simple onboard switch or AI Suite II utility. Get total system-wide energy optimization by automatically detecting current PC loadings and intelligently moderating power consumption. This also reduces fan noise and extends component longevity!



ASUS UEFI BIOS (EZ Mode)

Flexible and Easy BIOS Interface

ASUS UEFI BIOS offers the first mouse-controlled graphical BIOS designed with selectable modes, providing a user-friendly interface that goes beyond the traditional keyboard-only controls. It also natively supports fully-utilized hard drives larger than 2.2TB in 64-bit operating systems.



ASUS exclusive interface

EZ Mode displays frequently-accessed info. Users can choose system performance settings, and drag and drop boot priorities. Advanced Mode for performance enthusiasts includes detailed DRAM settings via a dedicated memory info page for complete insight.

- New upgrade! Quick and easy information for enhanced system control**
- F12 BIOS snapshot hotkey for sharing UEFI information and troubleshooting

Network iControl

Real-time Network Bandwidth Control

With a single-click on/off button, the application currently in use has its data and network bandwidth prioritized over other programs. Moreover, you can prioritize your favorite software easily by configuring profiles through the intuitive user interface. Within the profile, programs can be pre-scheduled to run in a specific time period to avoid network congestion and long-waits on downloads. Auto PPPoE network connection provides a one-step setup for enhanced online convenience. Overall, it's an intuitive network bandwidth control center.



- New F3 Shortcut for most accessed information
- ASUS DRAM SPD (Serial Presence Detect) information for accessing memory information, detecting faulty DIMMs, and helping with difficult POST situations.



LOW EMI

Protect You

A special low-radiation design shields you from harmful electromagnetic exposure by eliminating 50% of radiation.

1. Radiation Deduction Design minimizes harmful electromagnetic radiation output with exclusive circuit design to cancel electrical charge.
2. The Radiation Moat Design effectively blocks radiation to prevent discharge spread.



TurboV

Easy, Real-Time O.C. Tunings

Feel the adrenaline rush of real-time OC-now a reality with the ASUS TurboV. This easy OC tool allows you to overclock without exiting or rebooting the OS; and its user-friendly interface makes overclock with just a few clicks away. Moreover, the ASUS OC profiles in TurboV provides the best O.C. settings in different scenarios.



ASUS GPU Boost

Go to the Limit with iGPU Level Up!

GPU Boost accelerates the integrated GPU for extreme graphics performance. The user-friendly interface facilitates flexible frequency adjustments. It easily delivers stable system-level upgrades for every use.



100% Solid CAP

This motherboard uses all high-quality conductive polymer capacitors onboard for durability, improved lifespan, and enhanced thermal capacity.



ASUS Anti-Surge Protection

This special design prevents expensive devices and the motherboard from damage caused by power surges from switching power supply (PSU).



Fan Xpert

Active Quiet & Cool

ASUS Fan Xpert intelligently allows users to adjust both the CPU and chassis fan speed according to different ambient temperature, which is caused by different climate conditions in different geographic regions and system loading. Built-in variety of useful profiles offer flexible controls of fan speed to achieve a quiet and cool environment.



Specifications

CPU	Intel® Socket 1155 for 3 rd /2 nd Generation Core™ i7/Core™ i5/Core™ i3/Pentium®/Celeron® Processors Supports Intel® 22 nm CPU Supports Intel® 32 nm CPU Supports Intel® Turbo Boost Technology 2.0 * The Intel® Turbo Boost Technology 2.0 support depends on the CPU types. * Refer to www.asus.com for CPU support list
Chipset	Intel® H61(B3)
Memory	2 x DIMM, Max. 16GB, DDR3 2200(O.C.)/2133(O.C.)/2000(O.C.)/1866(O.C.)/1600/1333/1066 MHz Non-ECC, Un-buffered Memory Dual Channel Memory Architecture Supports Intel® Extreme Memory Profile (XMP) * 1600MHz and higher frequency is supported by Intel® 3rd generation processors. * The maximum 16GB memory capacity can be supported with 8GB or above DIMMs. ASUS will update the memory QVL once the DIMMs are available in the market. * Refer to www.asus.com or user manual for the Memory QVL (Qualified Vendors Lists). * Due to OS limitation, when installing total memory of 4GB capacity or more, Windows® 32-bit operation system may only recognize less than 3GB. Install a 64-bit Windows® OS when you want to install 4GB or more memory on the motherboard. * Due to the CPU behavior, DDR3 2133/1866MHz memory module will run at DDR3 2000/1800MHz frequency as default.
Graphic	Integrated Graphics Processor Multi-VGA output support : DVI/RGB ports - Supports DVI with max. resolution 1920 x 1200 @ 60 Hz - Supports RGB with max. resolution 2048 x 1536 @ 75 Hz Supports Intel® HD Graphics, Quick Sync Video
Expansion Slots	1 x PCIe 3.0/2.0 x16 *1 2 x PCIe 2.0 x1 1 x PCI
Storage	

	Intel® H61(B3) chipset : 4 x SATA 3Gb/s port(s), blue
LAN	Realtek® 8111F, 1 x Gigabit LAN Controller(s)
Audio	Realtek® ALC887 8-Channel High Definition Audio CODEC *2
USB Ports	Intel® H61(B3) chipset : 10 x USB 2.0/1.1 port(s) (6 at back panel, black, 4 at mid-board)
Overclocking Features	Overclocking Protection : - ASUS C.P.R.(CPU Parameter Recall)
Special Features	ASUS EPU : - EPU ASUS Digital Power Design : - Industry leading Digital 3 + 1 + 1 Phase Power Design - ASUS DIGI+ VRM Utility TurboV GPU Boost ASUS Exclusive Features : - Ai Charger - Anti-Surge - Low EMI Solution - ASUS UEFI BIOS EZ Mode featuring friendly graphics user interface - Network iControl - Disk Unlocker ASUS Quiet Thermal Solution : - Stylish Fanless Design Heat-sink solution - ASUS Fan Xpert ASUS EZ DIY : - ASUS CrashFree BIOS 3 - ASUS EZ Flash 2 - ASUS MyLogo 2 100% All High-quality Conductive Polymer Capacitors
Back I/O Ports	1 x PS/2 keyboard/mouse combo port(s) 1 x DVI 1 x D-Sub 1 x LAN (RJ45) port(s) 6 x USB 2.0 3 x Audio jack(s)
Internal I/O Ports	2 x USB 2.0 connector(s) support(s) additional 4 USB 2.0 port(s) 1 x COM port(s) connector(s) 4 x SATA 3Gb/s connector(s) 1 x CPU Fan connector(s) 1 x Chassis Fan connector(s) 1 x S/PDIF out header(s) 1 x 24-pin EATX Power connector(s) 1 x 4-pin ATX 12V Power connector(s) 1 x parallel port connector(s) 1 x Front panel connector(s) 1 x System panel(s)
Accessories	User's manual I/O Shield 2 x SATA 3Gb/s cable(s)
BIOS	64 Mb Flash ROM, UEFI BIOS, PnP, DMI2.0, WfM2.0, SM BIOS 2.7, ACPI 2.0a, Multi-language BIOS, ASUS EZ Flash 2, ASUS CrashFree BIOS 3, F12 PrintScreen Function, F3 Shortcut Function and ASUS DRAM SPD (Serial Presence Detect) memory information
Manageability	WfM 2.0, DMI 2.0, WOL by PME, WOR by PME, PXE
Support Disc	Drivers ASUS Utilities ASUS Update Anti-virus software (OEM version)
Form Factor	mATX Form Factor 9.6 inch x 7.8 inch (24.4 cm x 19.8 cm)
Note	*1: Intel® 3rd Generation Core™ processors support PCIe 3.0 speed. *2: Use a chassis with HD audio module in the front panel to support an 8-channel audio output.